

REMARKS

Reconsideration and allowance of the subject application are respectfully requested.

Claims 1, 2, 5-33, and 36-59 are all the claims pending in the application. Applicant respectfully submits the pending claims define patentable subject matter.

Claim Rejections - 35 USC § 101

Claims 1, 2, 5-28, 32, 33 and 36-59 remain rejected under 35 U.S.C. 101, as the Examiner alleges the claimed invention is directed to non-statutory subject matter. Applicant submits the rejection is improper.

Claim 32 recites, in part:

A tangible computer-readable recording medium in which a computer program for performing a method of transmitting a bit stream in a communication network is stored, the computer program comprising instructions for performing a method of transmitting a bit stream in a communication network, the method comprising[....]

Claim 33 recites analogous features.

Regarding claims 32 and 33, the Examiner asserts claims 32 and 33 are non-statutory, because the claims do not have “the claimed computer-readable medium encoded with a computer program (or computer executable instructions or instructions capable of being executed by a computer).”

However, as noted above, the claim recites a “tangible computer-readable recording medium in which a computer program for performing a method of transmitting a bit stream in a communication network is stored[.]” Thus, the claim is directed to a computer-readable recording medium which stores a computer program for performing a method. As such, it is

unclear as to how this is not analogous to “the claimed computer-readable medium encoded with a computer program (or computer executable instructions or instructions capable of being executed by a computer),” as noted by the Examiner. Applicant therefore respectfully requests the Examiner reconsider and withdraw the rejection of claims 32 and 33.

The Examiner further asserts claims 32, 33 and 36-59 are non-statutory, “since these claims as a whole are directed to a signal.” In particular, Applicant notes the Examiner again cites page 14, lines 5-11 of the Specification. However, in the Amendment filed May 9, 2007, Applicant amended the Specification at page 14 with regard to the phrase regarding a carrier wave. Therefore, Applicant submits the informalities noted by the Examiner have been obviated by the previous Amendment filed May 9, 2007.

Regarding claims 1 and 2, the Examiner asserts the claims are claiming software in the form of a method, and that 1) there is no physical transformation recited in the claim, and 2) no useful and tangible result recited in the claim. Specifically, the Examiner states:

The computer program per se does not produce useful and tangible result. Thus, claims 1-28, 32-59 are also non-statutory since the patent protection sought by the claimed invention is for the computer program in the abstract.

Again, Applicant disagrees with the Examiner’s position.

Independent claim 1 recites, in part,

- (a) coding source data into the bit stream using a predetermined type of coding;
- (b) adding a header from each communication protocol layer to a payload while transmitting the bit stream coded in operation (a) to each communication protocol layer; and
- (c) transmitting the header separately from the bit stream transmitted in the operation (b),

wherein in the operation (c), a bit stream, to which header information has been added by undergoing each communication

protocol layer, is transmitted in an unacknowledged mode protocol, and only the header information in the bit stream is separately transmitted in an acknowledged mode protocol.

Thus, based on the plain recitations of the claim noted above, Applicant points out independent claims 1 and 2 are method claims, which require physical transforming acts including coding, adding and transmitting of data.

Consequently, Applicant submits the claims recite a useful and tangible result, e.g., transmitting, coding and adding. Therefore, Applicant respectfully requests the Examiner reconsider and withdraw the current rejection.

In view of the above, Applicant submits claims 1, 2, 5-28, 32, 33 and 36-59 recite patentable subject matter, and thus, Applicant respectfully requests the Examiner reconsider and withdraw the rejection.

Claim Rejections - 35 USC § 112

Claims 32 and 33 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter.

In particular, regarding claims 32 and 33, the Examiner states,

claims 32 and 33 "appear to be an apparatus or device claims, the claims have method steps being executed by a computer program. However, the claims further claimed a computer program to execute a method and to perform method steps. Claims 32 and 33 taken as a whole appear to be an apparatus claim. Therefore, it is not clear what is claimed by the applicant is it the "an apparatus" or "a computer program" or "a method".

The Examiner notes claims 36-59 are also rejected under 35 U.S.C. 112, second paragraph because claims 36-59 are dependent upon the rejected base claims 32 and 33, respectively.

Claims 32 and 33 are each directed to tangible computer-readable recording mediums in which a computer program for performing a method. That is, claims 32 and 33, respectively, are directed to a computer-readable recording medium. Applicant submits such a recitation is self-explanatory. Therefore, Applicant submits claims 32 and 33 clearly set forth the subject matter claimed, and consequently, Applicant respectfully requests the Examiner reconsider and withdraw the current rejection.

Claims 5, 6, 36 and 37 stand rejected under 35 U.S.C. § 112, second paragraph, for various informalities. Applicant submits the proposed amendments obviate the current rejection under §112, second paragraph. Thus, Applicant requests the Examiner withdraw the rejection.

Claim Rejections - 35 USC § 103

Claims 1, 2, 5-28, 32, 36-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ludwig et al. (US 6,697,35; hereinafter “Ludwig”) and Sutoh (US 6,678,770) in view of Zhu (US 6,154,780).¹ Applicant traverses the rejection as follows.

Independent claim 1 recites, in part:

(c) transmitting the header separately from the bit stream transmitted in the operation (b),

wherein in the operation (c), a bit stream, to which header information has been added by undergoing each communication protocol layer, is transmitted in an unacknowledged mode protocol, and only the header information in the bit stream is separately transmitted in an acknowledged mode protocol.

¹ Applicant notes that while the Examiner did not list claims 29-31 in the summary of the rejection stated in the first paragraph on page 6 of the Office Action, the Examiner nevertheless rejects claims 29-31 over the references noted above (see pages 10 and 11 of the Office Action).

The Examiner acknowledges Ludwig does not disclose only the header information in the bit stream is separately transmitted in an acknowledged mode protocol. However, the Examiner asserts Sutoh discloses this claimed feature. In support of his position, the Examiner cites Sutoh, FIG. 19 and col. 13, lines 50-58, and regarding the cited portion of Sutoh, the Examiner states, “can transmit the protocol header and data as separate blocks’ correlates to only the header information in the bit stream is separately transmitted.” Applicant respectfully disagrees with the Examiner’s position.

Instead, Applicant points out the cited portion of Sutoh merely states that the protocol header and data can be transmitted as separate blocks. Applicant submits this does not correspond to the claimed feature, “only the header information in the bit stream is separately transmitted in an acknowledged mode protocol.” That is, just because header information may be separately transmitted from data, does not necessarily mean only the header information is separately transmitted in an acknowledged mode protocol, as the claim sets forth.

Moreover, Sutoh fails to disclose or suggest any difference between how data and header information are transmitted, with regard to acknowledged or unacknowledged mode protocols. Instead, Applicant submits Sutoh only describes acknowledged protocols. For example, the cited FIG. 19 is a flowchart showing the transmission of data from one intelligent device to another. FIG. 19 clearly shows an acknowledgement signal sent back to the requesting device after copying data blocks (i.e., sending a “RECEIVE ACKNOWLEDGE” or a “NEGATIVE RECEIVE ACKNOWLEDGE” command). In other words, transmissions of data blocks must be acknowledged in Sutoh. Therefore, the cited disclosure of Sutoh does not state only header information is transmitted in an acknowledged mode protocol. To the contrary, the cited portion of Sutoh plainly states data blocks must be acknowledged. Thus, Sutoh cannot correspond to the

claimed features noted above. Thus, Applicant submits Sutoh fails to disclose or suggest the feature “and only the header information in the bit stream is separately transmitted in an acknowledged mode protocol,” as claimed.

Accordingly, Applicant submits Sutoh fails to cure the deficiency of Ludwig. Zhu also fails to teach or suggest this unique feature. Indeed, Zhu is silent as to both acknowledged and unacknowledged mode protocols. Thus, none of the cited references, either alone or in combination, teaches or suggests the above-noted features of the claimed invention.

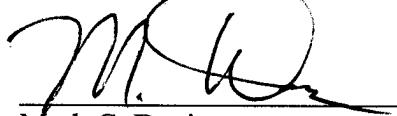
In view of the above-noted deficiencies, Applicant submits independent claim 1 is patentable over the prior art of record, for at least these reasons. Similarly, Applicant submits independent claims 2, 29, 30, 32 and 33 are patentable for analogous reasons. Further, Applicant submits dependent claims 5-28 and 36-59 are patentable over the prior art of record, at least by virtue of their respective dependency on claims 1, 2, 32 and 33.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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